

PATENT COOPERATION TREATY

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INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

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(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 1.164.001 WO	FOR FURTHER ACTION		See Form PCT/IPEA/416
International application No. PCT/NL2004/000233	International filing date (day/month/year) 08.04.2004	Priority date (day/month/year) 15.04.2003	
International Patent Classification (IPC) or national classification and IPC G01V15/00, G01S5/02			
Applicant HIGHTEEGOLF B.V.			

<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 7 sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input type="checkbox"/> <i>sent to the applicant and to the International Bureau</i> a total of sheets, as follows:</p> <ul style="list-style-type: none"> <input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions). <input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box. <p>b. <input type="checkbox"/> <i>(sent to the International Bureau only)</i> a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>
<p>4. This report contains indications relating to the following items:</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Box No. I Basis of the opinion <input type="checkbox"/> Box No. II Priority <input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability <input type="checkbox"/> Box No. IV Lack of unity of invention <input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement <input type="checkbox"/> Box No. VI Certain documents cited <input type="checkbox"/> Box No. VII Certain defects in the international application <input type="checkbox"/> Box No. VIII Certain observations on the international application

Date of submission of the demand 14.02.2005	Date of completion of this report 22.07.2005
Name and mailing address of the international preliminary examining authority:  European Patent Office - P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk - Pays Bas Tel. +31 70 340 - 2040 Tx: 31 651 epo nl Fax: +31 70 340 - 3016	Authorized Officer Swartjes, H Telephone No. +31 70 340-2605



**INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY**

International application No.
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Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
 - This report is based on translations from the original language into the following language, which is the language of a translation furnished for the purposes of:
 - international search (under Rules 12.3 and 23.1(b))
 - publication of the international application (under Rule 12.4)
 - international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the **elements*** of the international application, this report is based on (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report*):

Description, Pages

1-7 as originally filed

Claims, Numbers

1-12 received on 14.02.2005 with letter of 14.02.2005

Drawings, Sheets

1/3-3/3 as originally filed

- a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing

- The amendments have resulted in the cancellation of:
 - the description, pages
 - the claims, Nos.
 - the drawings, sheets/figs
 - the sequence listing (*specify*):
 - any table(s) related to sequence listing (*specify*):
- This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
 - the description, pages
 - the claims, Nos.
 - the drawings, sheets/figs
 - the sequence listing (*specify*):
 - any table(s) related to sequence listing (*specify*):

* If item 4 applies, some or all of these sheets may be marked "superseded."

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Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes:	Claims	1-12
	No:	Claims	none
Inventive step (IS)	Yes:	Claims	none
	No:	Claims	1-12
Industrial applicability (IA)	Yes:	Claims	1-12
	No:	Claims	none

2. Citations and explanations (Rule 70.7):

see separate sheet

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(SEPARATE SHEET)**

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Re Item V

**Reasoned statement with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement**

- 1 The following document is referred to in this communication:
D1 : WO99/53339 (ORAD HI-TEC SYSTEMS LIMITED) 21 October 1999

2 CLARITY

- 2.1 The application does not meet the requirements of Article 6 PCT, because independent claims 1 and 11 are not clear.

Claims 1 and 11 use both the terms "streams" and "beams", with pulse beams consisting of parallel pulse streams. It is not clear how streams are different from beams. If the word parallel is interpreted as parallel in space, the words beam and stream would appear to be equivalent, or the word beam might be interpreted as an arbitrary collection of streams.

Another interpretation might be that the beam should really be regarded as a single beam in space. In this case, the term "pulse stream" should be interpreted as "pulse sequence". In this case, however, the word "parallel" can only be interpreted as "simultaneous" and it is not clear how two simultaneous, spatially coinciding pulse streams differ from a single stream.

The application therefore lacks clarity in the sense of Article 6 PCT.

3 INVENTIVE STEP

- 3.1 Furthermore, the above-mentioned lack of clarity notwithstanding, the subject-matter of claim 1 does not involve an inventive step in the sense of Article 33(3) PCT, and therefore the criteria of Article 33(1) PCT are not met.

The document D1 is regarded as being the closest prior art to the subject-matter of claim 1, and insofar as this claim can be understood, this document shows the

following features (the references in parentheses applying to this document):

System for localizing horses on a race track (page 9, line 25), comprising

- means for generating an energy field, wherein the energy field is formed by one or more pulse streams (page 11, lines 19 to 21),
- at least one horse provided with at least one disrupting means for locally disrupting the energy field (page 11, lines 8 to 10),
- detecting means for detecting the local disruption of the energy field (page 12, lines 1 to 4),
- a control unit coupled to the detecting means for localizing the horses on the basis of the detected local disruption (page 12, lines 5 to 8),
- the means for generating the energy field are adapted to transmit pulse beams of a plurality of pulse streams (page 11, lines 19 to 21).

3.2 The subject-matter of claim 1 therefore differs from this known localizing system in that:

- at least two pulse streams are oriented parallel to each other and
- the system is adapted to locate articles of sports equipment instead of horses.

3.3 The problem to be solved by the present invention may therefore be regarded as how to locate an article of sports equipment in a two-dimensional area.

3.4 The solution proposed in claim 1 of the present application cannot be considered as involving an inventive step (Article 33(3) PCT) for the following reasons:

Document D1 describes the transmitters as being installed around the racing track in such a way that each part of the track is covered by two or more transceivers (page 10, lines 24 to 26). In order to get full coverage of the track the skilled man would consider the simplest solution of placing the transmitters next to each other, so that the beams would be directed perpendicularly to the racing track and thus mutually parallel.

Furthermore, although the embodiment of D1, pages 10 to 12, describes a system for

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localizing horses, the same document already suggests that the system can also comprise tracking of other objects, such as racing cars or sailboats. (see page 1, lines 5 to 7).

The subject matter of claim 1 therefore does not involve an inventive step in the sense of Article 33(3) PCT.

- 3.5 For similar reasons the subject-matter of claim 11 can not be considered as involving an inventive step in the sense of Article 33(3) PCT. The document D1 is regarded as being the closest prior art to the subject-matter of claim 11, and insofar as this claim can be understood, this document shows the following features (the references in parentheses applying to this document):

A method for localizing horses on a race track (page 9, line 25) using a system as claimed in claim 1, comprising the steps of:

- generating an energy field, wherein the energy field is formed by one or more pulse streams (page 11, lines 19 to 21),
- placing in the energy field at least one race horse, provided with at least one disrupting means for locally disrupting the field (page 11, lines 8 to 10),
- detecting the local disruption of the energy field (page 12, lines 1 to 4), and
- localizing the race horse on the basis of the detected local disruption (page 12, lines 5 to 8).

- 3.6 The subject-matter of claim 1 therefore differs from this known localizing method in that:

- at least two pulse streams are oriented parallel to each other and
- the method is used to locate articles of sports equipment instead of horses.

- 3.7 The problem to be solved by the present invention may therefore be regarded as how to locate an article of sports equipment in a two-dimensional area.

- 3.8 The solution proposed in claim 1 of the present application cannot be considered as involving an inventive step (Article 33(3) PCT) for the following reasons:

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Document D1 describes the transmitters as being installed around the racing track in such a way that each part of the track is covered by two or more transceivers (page 10, lines 24 to 26). In order to get full coverage of the track the skilled man would consider the simplest solution of placing the transmitters next to each other, so that the beams would be directed perpendicularly to the racing track and thus mutually parallel.

Furthermore, although the embodiment of D1, pages 10 to 12, describes a method for localizing horses, the same document already suggests that the method can be used for tracking of other objects, such as racing cars or sailboats. (see page 1, lines 5 to 7).

The subject matter of claim 1 therefore does not involve an inventive step in the sense of Article 33(3) PCT.

4 DEPENDENT CLAIMS 2-10 AND 12

Since claims 2 to 10 depend on claim 1 and claim 12 depends on claim 11, they also do not meet the requirements of Article 6 PCT.

Furthermore, the claims 2 to 10 and 12 do not appear to contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of inventive step (Article 33(3) PCT).

Amended claims d.d. 14 February 2005 of International Application PCT/2004/000233

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Claims

1. System for localizing articles of sports equipment, comprising:
 - means for generating an energy field, wherein the energy field is formed by one or more pulse streams,
 - at least one article of sports equipment provided with at least one disrupting means for locally disrupting the energy field,
 - detecting means for detecting the local disruption of the energy field, and
 - a control unit coupled to the detecting means for localizing the article of sports equipment on the basis of the detected local disruption,characterized in that the means for generating the energy field are adapted to transmit pulse beams of a plurality of pulse streams, wherein at least two pulse streams of a pulse beam are oriented at least substantially parallel to each other.
- 15 2. System as claimed in claim 1, characterized in that each pulse beam comprises nine pulse streams, which pulse streams are oriented at least substantially parallel to each other.
- 20 3. System as claimed in claim 1 or 2, characterized in that the disrupting means is adapted to disrupt the energy field in a unique manner.
4. System as claimed in any of the foregoing claims, characterized in that the disrupting means is adapted to reflect the pulse streams.
- 25 5. System as claimed in any of the foregoing claims, characterized in that the disrupting means is adapted to influence the pulse streams.
6. System as claimed in any of the foregoing claims, characterized in that the disrupting means is formed by a chip.
- 30 7. System as claimed in any of the claims 1-5, characterized in that the disrupting means is formed by a coating.

Amended claims d.d. 14 February 2005 of International Application PCT/2004/000233

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8. System as claimed in any of the foregoing claims, characterized in that the system is provided with visual means communicating with the control unit for displaying the location of the detected article of sports equipment.

5 9. System as claimed in claim 8, characterized in that the communication between the control unit and the visual means takes place wirelessly via electromagnetic radiation.

10 10. System as claimed in claim 8, characterized in that the communication between the control unit and the visual means takes place wirelessly via pulse streams.

11. Method for localizing sports equipment using a system as claimed in any of the claims 1-10, comprising the steps of:

- 15 A) generating an energy field, wherein the energy field is formed by multiple pulse streams, wherein at least two pulse streams are oriented at least substantially parallel to each other,
- B) placing in the energy field at least one article of sports equipment, provided with at least one disrupting means for locally disrupting the energy field,
- C) detecting the local disruption of the energy field, and
- 20 D) localizing the article of sports equipment on the basis of the detected local disruption.

12. Method as claimed in claim 11, characterized in that the method is provided with a step E) comprising of visualizing the location of the article of sports equipment after localizing the article of sports equipment on the basis of the detected local disruption as according to step D).